UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
BUTLER, DENNIS

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/679,293	OH ET AL.
Office Action Summary	Examiner	Art Unit	
	Dennis M. Butler	2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 April 2008*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-7,13,15 and 24* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-7,13,15 and 24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

1.   This action is in response to the amendment received on April 10, 2008. Claims

1, 3-7, 13, 15 and 24 are pending. Claim 24 has been added.

DETAILED ACTION

Response to Amendment

2.   The text of those sections of Title 35, US Code not included in this action can be

found in a prior Office Action.

Double Patenting

3.   Claims 1, 3-7, 13, 15 and 24 are rejected on the ground of nonstatutory

obviousness-type double patenting as being unpatentable over claims 1-15 of U.S.

Patent No. 5,961,647 in view of Chaiken et al., U. S. Patent 6,223,283. Although the

conflicting claims are not identical, they are not patentably distinct from each other

because they are directed to substantially the same invention including a computer that

outputs a signal via a signal cable to a monitor, the signal indicating whether the

computer is powered on or off and switching circuitry in the monitor powering the

monitor on and off according to the signal. The elements relating to the computer that

outputs a signal via a signal cable to a monitor, the signal indicating whether the

computer is powered on or off and switching circuitry in the monitor powering the

monitor on and off according to the signal in the claims of the present application are

related as genus to the species of invention recited in the patented claims and fully

encompass the patented claims. The dependent claims of the present application

substantially correspond to the elements recited in the patented claims. The generic

claim elements are "anticipated" by the species of the patented invention. Titanium

Metals Corp. v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (holding that an

earlier species disclosure in the prior art defeats any generic claim). This courts

predecessor has held that, without a terminal disclaimer, the species claims preclude

issuance of the generic application. In re Van Ornum, 686 F.2d 937, 944, 214 USPQ

761, 767 (CCPA 1982); Schneller, 397 F.2d at 354. The claims differ from Kim et al in

that Kim et al fails to explicitly teach the monitor including a memory storing monitor

information wherein the information is provided to the computer whether the monitor is

powered on or off as claimed. However, Chaiken teaches that it is known to provide a

monitor with a memory storing monitor information and that it is conventional for the

BIOS to read/download the monitor information in a monitors ROM during initialization

with figure 2 and at column 1, lines 45-59. It would have been obvious to one of ordinary

skill in the art to locate the well known and conventional monitor ROM containing the

monitor information with the MICOM switching circuit in order to take advantage of the

independent 5 volt power signal that provides power whether the monitor is powered on

or off because this would allow the monitor to remain off during computer initialization

and configuration thereby reducing the power consumed by the monitor. In addition see

the reasons described below in connection to the art rejection and the examiner's

response to applicant's arguments.

Claim Rejections - 35 USC § 103

4.   Claims 1, 3-7, 13, 15 and 24 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kim et al., U. S. Patent 5,961,647 in view of Chaiken et al., U. S.

Patent 6,223,283.

Per claim 1:

A)   Kim et al teach the following claimed items:

1.   a computer (computer 100) selectively outputting a predetermined signal

indicating whether the computer is powered on or off with the signal output from

1st Power Supply 120 to switching circuit 250 in figures 4 and 5, at column 8,

lines 39-44 and 51-54 and at column 9, lines 17-25;

2.   a monitor (display 200) receiving the predetermined signal and powering

on and off according to the predetermined signal with figure 5 and at column 8,

lines 23-44 and 51-54;

3.   a video card processing and transmitting a video signal to the monitor with

video card 130, associated connectors and cable 300 of figure 5;

4.   outputting the predetermined signal from a predetermined pin of the video

card with the power supply control signal pin in cable 300 and the corresponding

connector pin in the video card connector, with figure 5, at column 9, lines 17-30

and at column 5, lines 36-40;

5.   transmitting the predetermined signal to the monitor independent of

whether the monitor is powered on or off at column 8, lines 39-44 and 51-54 and

at column 10, lines 53-65;

6.   a power control unit to control power supply within the monitor with

MICOM and switching circuit 250 of figure 4 and at column 8, line 23 – column 9,

line 16.

B)   The claims differ from Kim et al in that Kim et al fails to explicitly teach the

monitor including a memory separate from the power control unit storing monitor

information wherein the information is provided to the computer whether the

monitor is powered on or off as claimed.

C)   However, Kim describes providing a 5 volt power signal from the computer

to the MICOM and switching circuit 250 with figures 4 and 5. Kim discloses

supplying the 5 volt predetermined signal to the MICOM microcomputer when the

monitor is powered off at column 10, lines 53-65. Therefore, Kim discloses

providing a separate power source to the switching circuit components in the

monitor making the switching circuit power independent of whether the monitor

powered on or off. Chaiken teaches that it is known to provide a monitor with a

memory storing monitor information and that it is conventional for the BIOS to

read/download the monitor information in a monitors ROM during initialization

with figure 2 and at column 1, lines 45-59. In addition, Kim acknowledges that

monitors consume an undue amount of power and acknowledges that it is known

to include display power management systems (DPMS) in monitors at column 1,

lines 45-55 and column 7, lines 7-16. Kim further discloses improving the

conventional DPMS by combining a DPMS with the MICOM and switching circuit

250 of figures 4 and 5 in order to further reduce overall power consumption of the

monitor to below 1 watt at column 10, lines 53-65. This effectively makes the

MICOM microcomputer part of the DPMS. As described above, Kim maintains

the 5 volt power to MICOM microcomputer while the monitor is powered off

thereby further reducing the power consumption of the monitor when in the

power save mode because only the MICOM switching circuit remains powered. It

would have been obvious to one having ordinary skill in the art at the time the

invention was made to provide a monitor with a memory storing monitor

information, as taught by Chaiken, in order to provide the computer and BIOS

with monitor information for initializing and configuring the computer. In addition,

it would have been obvious to one having ordinary skill in the art at the time the

invention was made to locate the memory with the MICOM switching circuit

components and power the memory from the 5 volt power signal of Kim in order

to provide power to the memory whether the monitor is powered on or off

because this would allow the monitor to remain off while the ROM was being

accessed during computer initialization and configuration thereby reducing the

power consumed by the monitor. Chaiken discloses that one of ordinary skill in

the art would have known that monitors include a ROM for storing EDID files

having monitor information and that it is conventional for the BIOS to

read/download the EDID file in a monitors ROM during initialization. It would

have been obvious for one of ordinary skill in the art to locate the ROM storing

the EDID file with the monitors MICOM microcomputer switching components in

order to take advantage of the independent 5 volt power source that provides

power whether the monitor is powered on or off.

Per claims 3, 4 and 24:

A)   Kim et al teach the following claimed items:

1.   a computer (computer 100) selectively outputting a predetermined signal

indicating whether the computer is powered on or off with the signal output from

1st Power Supply 120 to switching circuit 250 in figures 4 and 5, at column 8,

lines 39-44 and 51-54 and at column 9, lines 17-25;

2.   a monitor (display 200) receiving the predetermined signal and powering

on and off according to the predetermined signal with figure 5 and at column 8,

lines 23-44 and 51-54;

3.   a video card processing and transmitting a video signal to the monitor with

video card 130, associated connectors and cable 300 of figure 5;

4.   outputting the predetermined signal from a predetermined pin of the video

card with the power supply control signal pin in cable 300 and the corresponding

connector pin in the video card connector, with figure 5, at column 9, lines 17-30

and at column 5, lines 36-40;

5.   transmitting the predetermined signal to the monitor independent of

whether the monitor is powered on or off at column 8, lines 39-44 and 51-54 and

at column 10, lines 53-65;

6.   a power control unit comparing a reference level (the threshold voltage

level of switching transistor Q1) with a level of the predetermined signal,

detecting a state of the computer based on the comparison and outputting a

monitor power control signal to control power supply within the monitor with

MICOM and switching circuit 250 of figure 4 and at column 8, line 23 – column 9,

line 16;

7.   a power supply unit that is controlled by the control unit to supply or stop

the supply of power to the monitor with 2nd Power Supply 240 and associated

switch of figure 4 and at column 8, line 51 – column 9, line 16.

B)   The claims differ from Kim et al in that Kim et al fails to explicitly teach the

monitor including a memory, separate from the power control unit, storing

monitor information wherein the information is provided to the computer whether

the monitor is powered on or off as claimed.

C)   However, Kim describes providing a 5 volt power signal from the computer

to the MICOM and switching circuit 250 with figures 4 and 5. Kim discloses

supplying the 5 volt predetermined signal to the MICOM microcomputer when the

monitor is powered off at column 10, lines 53-65. Therefore, Kim discloses

providing a separate power source to the switching circuit components in the

monitor making the switching circuit power independent of whether the monitor

powered on or off. Chaiken teaches that it is known to provide a monitor with a

memory storing monitor information and that it is conventional for the BIOS to

read/download the monitor information in a monitors ROM during initialization

with figure 2 and at column 1, lines 45-59. In addition, Kim acknowledges that

monitors consume an undue amount of power and acknowledges that it is known

to include display power management systems (DPMS) in monitors at column 1, lines 45-55 and column 7, lines 7-16. Kim further discloses improving the conventional DPMS by combining a DPMS with the MICOM and switching circuit 250 of figures 4 and 5 in order to further reduce overall power consumption of the monitor to below 1 watt at column 10, lines 53-65. This effectively makes the MICOM microcomputer part of the DPMS. As described above, Kim maintains the 5 volt power to MICOM microcomputer while the monitor is powered off thereby further reducing the power consumption of the monitor when in the power save mode because only the MICOM switching circuit remains powered. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a monitor with a memory storing monitor information, as taught by Chaiken, in order to provide the computer and BIOS with monitor information for initializing and configuring the computer. In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to locate the memory with the MICOM switching circuit components and power the memory from the 5 volt power signal of Kim in order to provide power to the memory whether the monitor is powered on or off because this would allow the monitor to remain off while the ROM was being accessed during computer initialization and configuration thereby reducing the power consumed by the monitor. Chaiken discloses that one of ordinary skill in the art would have known that monitors include a ROM for storing EDID files having monitor information and that it is conventional for the BIOS to

read/download the EDID file in a monitors ROM during initialization. It would

have been obvious for one of ordinary skill in the art to locate the ROM storing

the EDID file with the monitors MICOM microcomputer switching components in

order to take advantage of the independent 5 volt power source that provides

power whether the monitor is powered on or off.

Per claims 5 and 6:

Kim describes detecting the level of the predetermined signal, supplying power to

the monitor when the level is higher than a reference level and cutting off power

when the level is lower than the reference level with the threshold voltage level of

switching transistor Q1 of figure 4 and at column 8, line 58 – column 9, line 16.

Kim describes that the predetermined signal is 5V for powering on and 0V for

powering off at column 10, lines 18-53.

Per claim 7:

Kim describes transmitting the predetermined signal to the monitor via a serial

cable with the serial cable running from 1st Power Supply 120 to

MICOM/switching circuit 250 in figure 5.

Per claim 13:

A)   Kim et al teach the following claimed items:

1.   receiving, by a power control unit controlling power within the monitor

(MICOM microcomputer), a predetermined signal from a computer indicating

whether the computer is powered on or off with the signal output from 1st Power

Supply 120 and received by the MICOM microcomputer in figure 4 and at column 8, lines 39-44 and 51-54;

2.   selectively powering, by the power control unit (MICOM microcomputer), the monitor on and off according to the predetermined signal with figure 4, at column 8, lines 23-44 and 51-54 and at column 10, lines 53-65;

3.   transmitting the predetermined signal to the monitor whether the monitor is powered on or off at column 8, lines 39-44 and 51-54 and at column 10, lines 53-65. The computer supplies a powered on signal level when the computer is powered on and supplies a powered off signal level when the computer is powered off. In addition, the predetermined signal allows for powering the monitor off in a power save mode while maintaining power to the MICOM microcomputer via the predetermined signal.

B)   The claims differ from Kim et al in that Kim et al fails to explicitly teach supplying power from the predetermined signal to a memory, separate from the power control unit, storing monitor information so that the monitor information is accessible by the computer if the monitor is powered off as claimed.

C)   However, Kim describes providing a 5 volt power signal from the computer to the MICOM and switching circuit 250 with figures 4 and 5. Kim discloses supplying the 5 volt predetermined signal to the MICOM microcomputer when the monitor is powered off at column 10, lines 53-65. Therefore, Kim discloses providing a separate power source to the switching circuit components in the monitor making the switching circuit power independent of whether the monitor

powered on or off. Chaiken teaches that it is known to provide a monitor with a memory storing monitor information and that it is conventional for the BIOS to read/download the monitor information in a monitors ROM during initialization with figure 2 and at column 1, lines 45-59. In addition, Kim acknowledges that monitors consume an undue amount of power and acknowledges that it is known to include display power management systems (DPMS) in monitors at column 1, lines 45-55 and column 7, lines 7-16. Kim further discloses improving the conventional DPMS by combining a DPMS with the MICOM and switching circuit 250 of figures 4 and 5 in order to further reduce overall power consumption of the monitor to below 1 watt at column 10, lines 53-65. This effectively makes the MICOM microcomputer part of the DPMS. As described above, Kim maintains the 5 volt power to MICOM microcomputer while the monitor is powered off thereby further reducing the power consumption of the monitor when in the power save mode because only the MICOM switching circuit remains powered. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a monitor with a memory storing monitor information, as taught by Chaiken, in order to provide the computer and BIOS with monitor information for initializing and configuring the computer. In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to locate the memory with the MICOM switching circuit components and power the memory from the 5 volt power signal of Kim in order to provide power to the memory whether the monitor is powered on or off

because this would allow the monitor to remain off while the ROM was being accessed during computer initialization and configuration thereby reducing the power consumed by the monitor. Chaiken discloses that one of ordinary skill in the art would have known that monitors include a ROM for storing EDID files having monitor information and that it is conventional for the BIOS to read/download the EDID file in a monitors ROM during initialization. It would have been obvious for one of ordinary skill in the art to locate the ROM storing the EDID file with the monitors MICOM microcomputer switching components in order to take advantage of the independent 5 volt power source that provides power whether the monitor is powered on or off.

Per claim 15:

Kim describes transmitting the predetermined signal to the monitor via a serial cable with the serial cable running from 1st Power Supply 120 to MICOM in figure 4. Kim describes detecting the level of the predetermined signal, supplying power to the monitor when the level is higher than a reference level and cutting off power when the level is lower than the reference level with the threshold voltage level of switching transistor Q1 of figure 4 and at column 8, line 58 – column 9, line 16. Kim describes powering off the monitor when the predetermined signal is not received due to the computer being in a DPMS mode or a power off mode at column 8, lines 51-54, at column 9, lines 8-16 and column 10, lines 47-65.

Response to Arguments

5.   Applicant's arguments filed on April 10, 2008 have been fully considered but they are not persuasive.

In the Remarks, applicant has argued in substance that:

A.   The obviousness-type double patenting is improper for not meeting a prima facie obviousness standard.

B.   The Office Action proposed combination fails to disclose that the claimed memory is separate from the claimed power control unit.

6.   As to point A, the examiner disagrees with applicant's contentions. The examiner has made a prima facie case of obviousness-type double patenting. The examiner identified the claims the claims relied upon (species claims of the patent substantially correspond to the genus claims of the application), disclosed what features are missing (Kim et al fails to explicitly teach the monitor including a memory storing monitor information wherein the information is provided to the computer whether the monitor is powered on or off) and disclosed where a memory storing monitor storing monitor information could be found (Chaiken et al) and provided reasoning for modifying the claimed invention of Kim et al (see the above rejection). Therefore, applicant's contention is unfounded.

As to point B, the examiner disagrees with applicant's contentions. The examiner best understands the limitation "separate from the power control unit" as meaning not inside the power control unit (MICOM microcomputer, not the memory included inside the microcomputer). The examiner has provided reasons for locating Chaiken's monitor ROM storing monitor information with the MICOM switching circuit components in the

above detailed office action, in the non-final rejection of December 11, 2007, in the final

rejection of June 25, 2007 and in the non-final rejection of January 29, 2007. Chaiken

teaches that it was known at the time of the invention to provide a monitor with a

memory storing monitor information and that it was conventional for the BIOS to

read/download the monitor information in a monitors ROM during initialization with

figure 2 and at column 1, lines 45-59. Therefore, it was conventional to include a ROM

that stores monitor information in monitors and there is clear reason for placing the

monitor information in a memory in the monitor as it was well known and conventional to

do so at the time of the invention in order to provide the computer and BIOS with

monitor information for initializing and configuring the computer. It would have been

obvious to locate Chaiken's monitor ROM storing monitor information with the MICOM

switching circuit components in order to take advantage of the independent 5 volt power

source that provides power whether the monitor is powered on or off because this would

allow the monitor to remain off while the ROM was being accessed during computer

initialization and configuration thereby reducing the power consumed by the monitor.

Rejections on obviousness grounds cannot be sustained by mere conclusory

statements; instead, there must be some articulated reasoning with some rational

underpinning to support the legal conclusion of obviousness. However, the analysis

need not seek out precise teachings directed to the specific subject matter of the

challenged claim, for a court can take account of the inferences and creative steps that

a person of ordinary skill in the art would employ (KSR v. Teleflex). The examiner has

provided articulated reasoning and rational to support the obviousness determination.

The question is not whether the combination was obvious to the patentee but whether the combination was obvious to a person with ordinary skill in the art. Common sense teaches that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill in the art will be able to fit the teachings of multiple patents together like pieces of a puzzle (KSR v. Teleflex). One of ordinary skill in the art would have been motivated to locate Chaiken's monitor ROM storing monitor information with the MICOM switching circuit components in order to take advantage of the independent 5 volt power source that provides power whether the monitor is powered on or off because this would allow the monitor to remain off while the Rom is being accessed during computer initialization and configuration thereby reducing the power consumed by the monitor.

Conclusion

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dennis M. Butler whose telephone number is 571-272-

3663. The fax phone number for the organization where this application or proceeding is

assigned is 571-273-8300.

        Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

/Dennis M. Butler/   Dennis M. Butler
Primary Examiner, Art Unit 2115   Primary Examiner
                                                Art Unit 2115